

Amendment to the Claims

Please amend the Claims as follows and without prejudice. This listing of Claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-9 (CANCELLED)

10. (PREVIOUSLY PRESENTED) A method for manufacturing semiconductor granules intended to feed a semiconductor material manufacturing melt, said method comprising a step of sintering powders of at least one material selected from the group consisting of silicon, germanium, gallium arsenide, and the alloys thereof so as to form said granules, said sintering step comprising the steps of compacting and thermal processing said powders.

11. (PREVIOUSLY PRESENTED) The method of claim 10, wherein the granules have a size greater than 1 mm.

12. (PREVIOUSLY PRESENTED) The method of claim 10, wherein the powders comprise powders of at least one of nanometric and micrometric sizes.

13. (PREVIOUSLY PRESENTED) The method of claim 10, wherein the step of sintering comprises a compaction step followed with a thermal processing step.

14. (PREVIOUSLY PRESENTED) The method of claim 13, wherein the pressure of the compaction step ranges between 10 MPa and 1 GPa.

15. (PREVIOUSLY PRESENTED) The method of claim 10, wherein said compacting and thermal processing steps are performed at the same time defining a hot pressing step.

16. (PREVIOUSLY PRESENTED) The method of claim 15, wherein, in the hot pressing step, the pressure is lower than 100 MPa and the temperature is greater than 800°C.

17. (PREVIOUSLY PRESENTED) The method of claim 10, further comprising a step of placing the powders in a mould.

18. (PREVIOUSLY PRESENTED) The method of claim 10, wherein the powders are doped semiconductor powders.

19. (PREVIOUSLY PRESENTED) The method of claim 10, further comprising a step of annealing or doping of the granules.

20. (PREVIOUSLY PRESENTED) The method of Claim 10, wherein said granules have a diameter/thickness ratio in the range of about 1 to 1.66.

21. (PREVIOUSLY PRESENTED) The method of Claim 10, wherein said granules have a porosity ranging between about 20 % and about 40 %.

22. (PREVIOUSLY PRESENTED) The method of Claim 10, wherein said granules are cylindrical in shape.

23. (PREVIOUSLY PRESENTED) The method of Claim 10, wherein said granules have a shape selected from the group consisting of cubes, rectangle parallelepipeds and elongated.

24. (PREVIOUSLY PRESENTED) The method of Claim 17, wherein said mould comprises a plate having a plurality of openings.

25. (PREVIOUSLY PRESENTED) The method of Claim 24, wherein said openings have a diameter in the range of about 1 to 5 millimeters.

26. (PREVIOUSLY PRESENTED) The method of Claim 24, wherein said plate has a thickness in the range of about 1 mm to 3 mm.

27. (PREVIOUSLY PRESENTED) The method of Claim 11, wherein said granules have a diameter in the range of about 1 mm to 5 mm.

28. (PREVIOUSLY PRESENTED) The method of Claim 11, wherein said granules have a thickness in the range of about 1 mm to 3 mm.

29. (PREVIOUSLY PRESENTED) The method of Claim 12, wherein said powders are sized in the range of about 10 nm to 500 nm.

30. (PREVIOUSLY PRESENTED) The method of Claim 12, wherein said powders are sized in the range of about 10 μm to 500 μm .

31. (PREVIOUSLY PRESENTED) The method of claim 13, wherein the temperature is greater than 800°C.

32. (WITHDRAWN) A method comprising the steps of:

sintering powders of at least one material selected from the group consisting of silicon, germanium, gallium arsenide, and the alloys thereof so as to form granules, said sintering step comprising the steps of compacting and thermal processing said powders; and

feeding said granules to a melt to produce ingots.

33. (WITHDRAWN) The method of Claim 32, wherein said granules have a diameter in the range of about 1 mm to 5 mm and a thickness in the range of about 1 mm to 3 mm.

34. (NEW) A method for manufacturing semiconductor granules intended to feed a semiconductor material manufacturing melt, said method comprising:

sintering powders of at least one material selected from the group consisting of silicon, germanium, gallium arsenide, and the alloys thereof so as to form said granules, said sintering step comprising the steps of compacting and thermal processing said powders,

wherein, the step of sintering comprises a compaction step followed with a thermal processing step, and

wherein the pressure of the compaction step ranges between 10 MPa and 1 GPa.

35. (NEW) A method for manufacturing semiconductor granules intended to feed a semiconductor material manufacturing melt, said method comprising:

sintering powders of at least one material selected from the group consisting of silicon, germanium, gallium arsenide, and the alloys thereof so as to form said granules, said sintering step comprising the steps of compacting and thermal processing said powders,

wherein said compacting and thermal processing steps are performed at the same time defining a hot pressing step.

36. (NEW) The method of Claim 35, wherein, in the hot pressing step, the pressure is lower than 100 MPa and the temperature is greater than 800° C.

37. (NEW) A method for manufacturing semiconductor granules intended to feed a semiconductor material manufacturing melt, said method comprising:

sintering powders of at least one material selected from the group consisting of silicon, germanium, gallium arsenide, and the alloys thereof so as to form said granules, said sintering step comprising the steps of compacting and thermal processing said powders,

wherein the powders are doped semiconductor powders.

38. (NEW) A method for manufacturing semiconductor granules intended to feed a semiconductor material manufacturing melt, said method comprising:

sintering powders of at least one material selected from the group consisting of silicon, germanium, gallium arsenide, and the alloys thereof so as to form said granules, said sintering step comprising the steps of compacting and thermal processing said powders; and

annealing or doping of the granules.

39. (NEW) A method for manufacturing semiconductor granules intended to feed a semiconductor material manufacturing melt, said method comprising:

sintering powders of at least one material selected from the group consisting of silicon, germanium, gallium arsenide, and the alloys thereof so

as to form said granules, said sintering step comprising the steps of
compacting and thermal processing said powders,
wherein said granules have a porosity ranging between about 20% and about
40%.